Symbol comparison table: blosum62.cmp CompCheck: 6430

Name: hTRADEalpha 1	Len:	423	Check:	4050	Weight:	1.00
Name: hTRAIN_1	Len:	423	Check:	4128	Weight:	1.00
Name: hTRADEbeta 1	Len:	423	Check:	7937	Weight:	1.00
Name: hApo420pep	Len:	423	Check:	8173	Weight:	1.00

//

```
                   1                                                  50
hTRADEalpha_  MALKVLLEQE KTFFTLLVLL GYLSCKVTCE SGDCRQQEFR DRSGNCVPCN
   hTRAIN_1   MALKVLLEQE KTFFTLLVLL GYLSCKVTCE SGDCRQQEFR DRSGNCVPCN
hTRADEbeta_1  MALKVLLEQE KTFFTLLVLL GYLSCKVTCE TGDCRQQEFR DRSGNCVPCN
  hApo420pep  MALKVLLEQE KTFFTLLVLL GYLSCKVTCE SGDCRQQEFR DRSGNCVPCN
   Consensus  MALKVLLEQE KTFFTLLVLL GYLSCKVTCE SGDCRQQEFR DRSGNCVPCN

                   51                                                 100
hTRADEalpha_  QCGPGMELSK ECGFGYGEDA QCVTCRLHRF KEDWGFQKCK PCLDCAVVNR
   hTRAIN_1   QCGPGMELSK ECGFGYGEDA QCVTCRLHRF KEDWGFQKCK PCLDCAVVNR
hTRADEbeta_1  QCGPGMELSK ECGFGYGEDA QCVTCRLHRF KEDWGFQKCK PCLDCAVVNR
  hApo420pep  QCGPGMELSK ECGFGYGEDA QCVACRLHRF KEDWGFQKCK PCLDCAVVNR
   Consensus  QCGPGMELSK ECGFGYGEDA QCVTCRLHRF KEDWGFQKCK PCLDCAVVNR

                   101                                                150
hTRADEalpha_  FQKANCSATS DAICGDCLPG FYRKTKLVGF QDMECVPCGD PPPPYEPHCA
   hTRAIN_1   FQKANCSATS DAICGDCLPG FYRKTKLVGF QDMECVPCGD PPPPYEPHCA
hTRADEbeta_1  FQKANCSATS DAICGDCLPG FYRKTKLVGF QDMECVPCGD PPPPYEPHCA
  hApo420pep  FQKANCSATS DAICGDCLPG FYRKTKLVGF QDMECVPCGD PPPPYEPHCA
   Consensus  FQKANCSATS DAICGDCLPG FYRKTKLVGF QDMECVPCGD PPPPYEPHCA

                   151                                                200
hTRADEalpha_  SKVNLVKIAS TASSPRDTAL AAVICSALAT VLLALLILCV IYCKRQFMEK
   hTRAIN_1   SKVNLVKIAS TASSPRDTAL AAVICSALAT VLLALLILCV IYCKRQFMEK
hTRADEbeta_1  SKVNLVKIAS TASSPRDTAL AAVICSALAT VLLALLILCV IYCKRQFMEK
  hApo420pep  SKVNLVKIAS TASSPRDTAL AAVICSALAT VLLALLILCV IYCKRQFMEK
   Consensus  SKVNLVKIAS TASSPRDTAL AAVICSALAT VLLALLILCV IYCKRQFMEK

                   201                                                250
hTRADEalpha_  KPSWSLRSQD IQYNGSELSC FDRPQLHEYA HRACCQCRRD SVQTCGPVRL
   hTRAIN_1   KPSWSLRSQD IQYNGSELSC FDRPQLHEYA HRACCQCRRD SVQTCGPVRL
hTRADEbeta_1  KPSWSLRSQD IQYNGSELSC LDRPQLHEYA HRACCQCRRD SVQTCGPVRL
  hApo420pep  KPSWSLRSQD IQYNETELSC FDRPQLHEYA HRACCQCRRD SVQTCGPVRL
   Consensus  KPSWSLRSQD IQYNGSELSC FDRPQLHEYA HRACCQCRRD SVQTCGPVRL

                   251                                                300
hTRADEalpha_  LPSMCCEEAC SPNPATLGCG VHSAASLQAR NAGPAGEMVP TFFGSLTQSI
   hTRAIN_1   LPSMCCEEAC SPNPATLGCG VHSAASLQAR NAGPAGEMVP TFFGSLTQSI
hTRADEbeta_1  LPSMCCEEAC SPNPATLGCG VHSAASLQAR NAGPAGEMVP TFFGSLTQSI
  hApo420pep  LPSMCCEEAC SPNPATLGCG VHSAASLQAR NAGPAGEMVP TFFGSLTQSI
   Consensus  LPSMCCEEAC SPNPATLGCG VHSAASLQAR NAGPAGEMVP TFFGSLTQSI
```

Figure 1

```
              301                                                              350
hTRADEalpha_  CGEFSDAWPL  MQNPMGGDNI  SFCDSYPELT  GEDIHSLNPE  LESSTSLDSN
   hTRAIN_1   CGEFSDAWPL  MQNPMGGDNI  SFCDSYPELT  GEDIHSLNPE  LESSTSLDSN
hTRADEbeta_1  CGEFSDAWPL  MQNPMGGDNI  SFCDSYPELA  GEDIHSLAPE  LESSTSLDSN
  hApo420pep  CGEFSDAWPL  MQNPMGGDNI  SFCDSYPELT  GEDIHSLNPE  LESSTSLDSN
   Consensus  CGEFSDAWPL  MQNPMGGDNI  SFCDSYPELT  GEDIHSLNPE  LESSTSLDSN


              351                                                              400
hTRADEalpha_  SSQDLVGGAV  PVQSHSENFT  AATDLSRYNN  TLVESASTQD  ALTMRSQLDQ
   hTRAIN_1   SSQDLVGGAV  PVQSHSENFT  AATDLSRYNN  TLVESASTQD  ALTMRSQLDQ
hTRADEbeta_1  SSQDLVGGAV  PVQSHSENFT  AATDLSRYNN  TLVESASTQD  ALTMRSQLDQ
  hApo420pep  SSQDLVGGAV  PVQSHSENFT  AATDLSRYNN  TLVESASTQD  ALTMRSQLDQ
   Consensus  SSQDLVGGAV  PVQSHSENFT  AATDLSRYNN  TLVESASTQD  ALTMRSQLDQ


              401                     423
hTRADEalpha_  ESGAIIHPAT  QTSLQEA~~~  ~~~
   hTRAIN_1   ESGAVIHPAT  QTSLQEA~~~  ~~~
hTRADEbeta_1  ESGAIIHPAT  QTSLQVRQRL  GSL
  hApo420pep  ESGAVIHPAT  QTSLQVRQRL  GSL
   Consensus  ESGA-IHPAT  QTSLQ--QRL  GSL
```

Figure 1

TRADE-α   ESGAIIHPATQTSLQEA
TRADE-β   ESGAIIHPATQTSLQVRQRLGSL
                  401   416   423

Figure 2

CRD1

```
NGFRp75   CPTGLYT.H SGEC..CKAC NLGEGVAQSC ..G.ANQTVCE
OX40      CGDTYP..S NDEC..CHEC RPGNGMVSRC ..SRSQNTVCR
CD40      CREKQYL.I NSQC..CSIC QPGQKLVSDC ..TEFTETECL
TRADE     CRQQEFRDR SGNCVECNQC GPGMELSKEC GFGYGEDACCV
```

CRD2

```
NGFRp75   PCLDSVTFS DVVSATEPCK PCTECVGLQS MSAP...CVE ADDAVC
OX40      PC..GPGFY NDVVSSKPCK PCTNC.NLRS GSERKQLCTA TQDTVC
CD40      PCGES.KFL DTWNRETECH QHKYCDFNLG LRVQQKGTSE T.DTIC
TRADE     TCRLHR.FK EDWGFQK.CK PCLDCAVVN. .RFQKANCSA TSDAIC
```

Figure 3

Q ID NO:2	Human TRADEα	MALKVILEQEKTFETLLVLAGYLSPKVTYESGDGRQQEFRERECGAPWPTN
Q ID NO:6	Mouse Trade	MALKVIPLHRTVLAAILFILHLAVKVSCETBECRQEFKERECHRCVLSK

CRD2

Q ID NO:2	Human TRADEα	ZCCPGMELSKECGPGYGEDAQCVTCRHRFKEDCFQRCKPCLDCAVVHP
Q ID NO:6	Mouse Trade	ZKCPGMELSKECGPGYGEDAQEVPCRPHRFKEMGEQFCKPCAISCAIVHR

Q ID NO:2	Human TRADEα	FQKANCSATSDAICGDCLPGFYRFTKLVGFQDMECVPCGDPPPYEPHCA
Q ID NO:6	Mouse Trade	FQRANCSHTSDAVGSDCLPGFYRKTKLVGFQHMECVPCGDPPPYEPHCT

TM

Q ID NO:2	Human TRADEα	SKVNLVKIASTASSPRDTALAAVICSALATVLLALLITLCVIYCKRQFMEK
Q ID NO:6	Mouse Trade	SKVNLVKISBTVSSPRITALAAVICSALATVLLALLTLCVIYCKRQFMEK

Q ID NO:2	Human TRADEα	KPSWSLRSQDTQYNCSELSGFERCQHEYAHRACCQCRRDSVQTCGFVRI
Q ID NO:6	Mouse Trade	KPSWSLRSQDTQYNCSELSGFQQLRERHCAHRACKQYHRDSAPMYGFVHI

Q ID NO:2	Human TRADEα	LPSMXGEEACSPNPATIGRGVHBAASLCARNAGPASEMVETFFGSLTQSI
Q ID NO:6	Mouse Trade	IPSLNEBARKSARAVEANLRSPTTIGEXMPASVSDTMPAFFGSVSRSI

Q ID NO:2	Human TRADEα	YGEESIAKPIAGHFMGCFNISFGTSYPELTGRIHSINPELESSTSLFSN
Q ID NO:6	Mouse Trade	IARPSLANPTIIQGHLBHS-ELTEBYPELNGBTNSINPENRPAABLDBS

Q ID NO:2	Human TRADEα	SSGETIVSSVPVQSHSENFTAATDLSRYNNTLVESASTEPALTMRSCLDQ
Q ID NO:6	Mouse Trade	GGRDLAKFAALESSGNVSESTDSPRHGDTGIVWBQTLAIDAQRTPSGGW

Q ID NO:2	Human TRADEα	RSGAVIHPATQTSLEEA	417
Q ID NO:6	Mouse Trade	SDRENLNLAMPIAFLEA	416

Figure 4

Figure 5
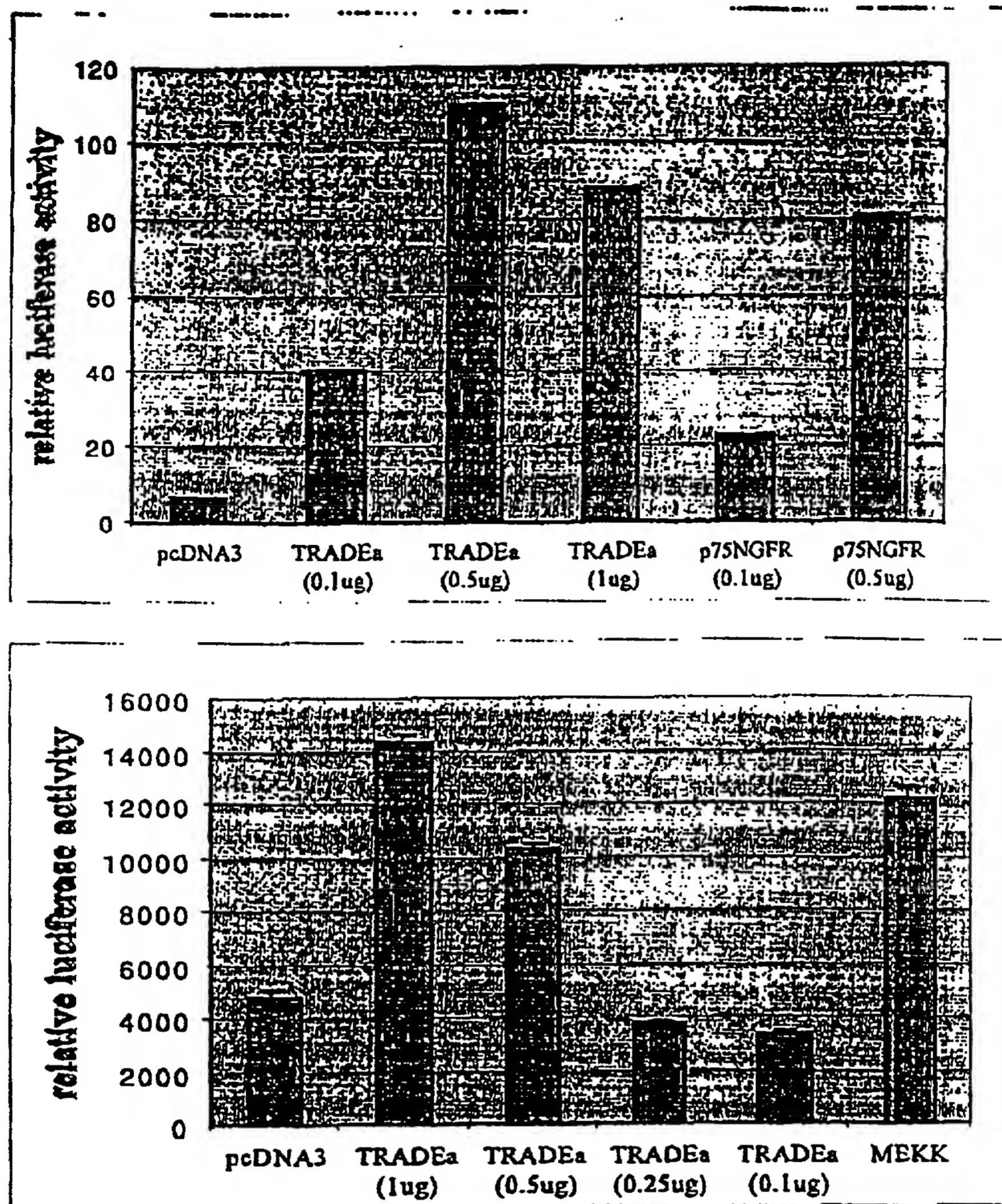
Figure 6

Figure 7

Figure 8

Flag-TRADEα

Flag-TRADEβ

Flag-TRADE $^{1-368}$

Flag-TRADE $^{1-328}$

Flag-TRADE $^{1-218}$

(TRADE EC)

Flag-TRADE $^{1-196}$

TRADEα IC

TRADEβ IC

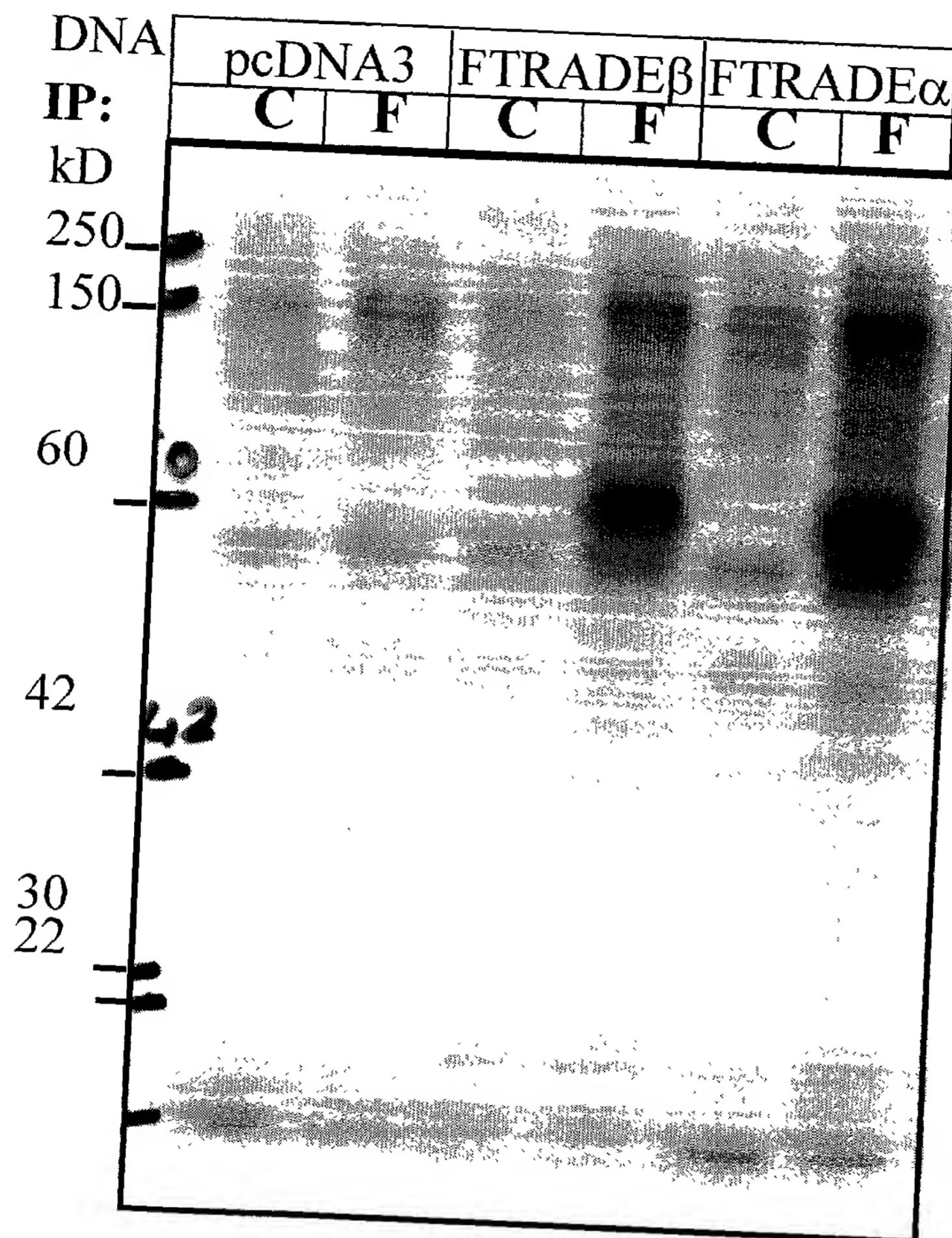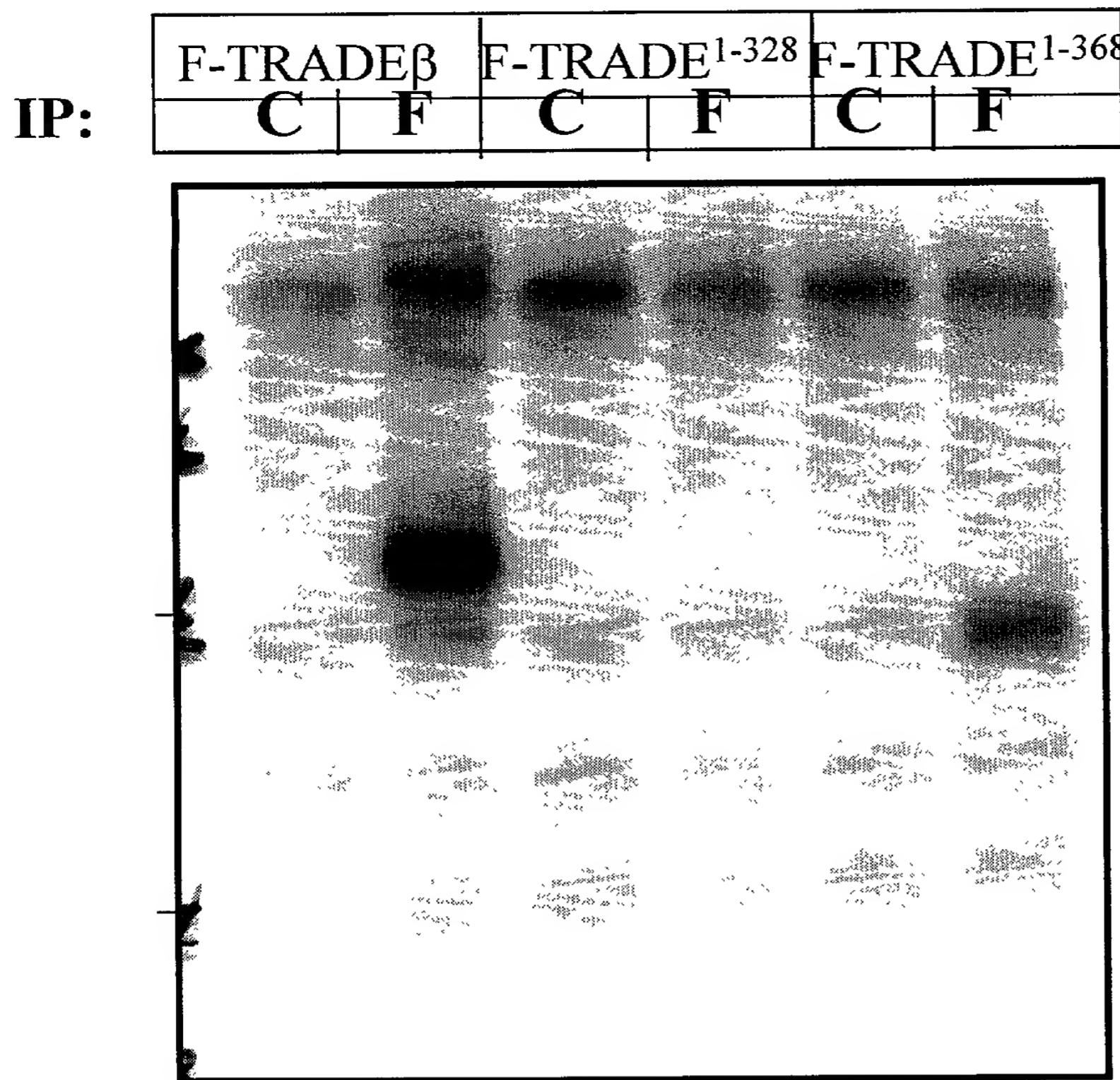flag epitope   cysteine rich   P/S   TM   intracellular

Deletion analysis
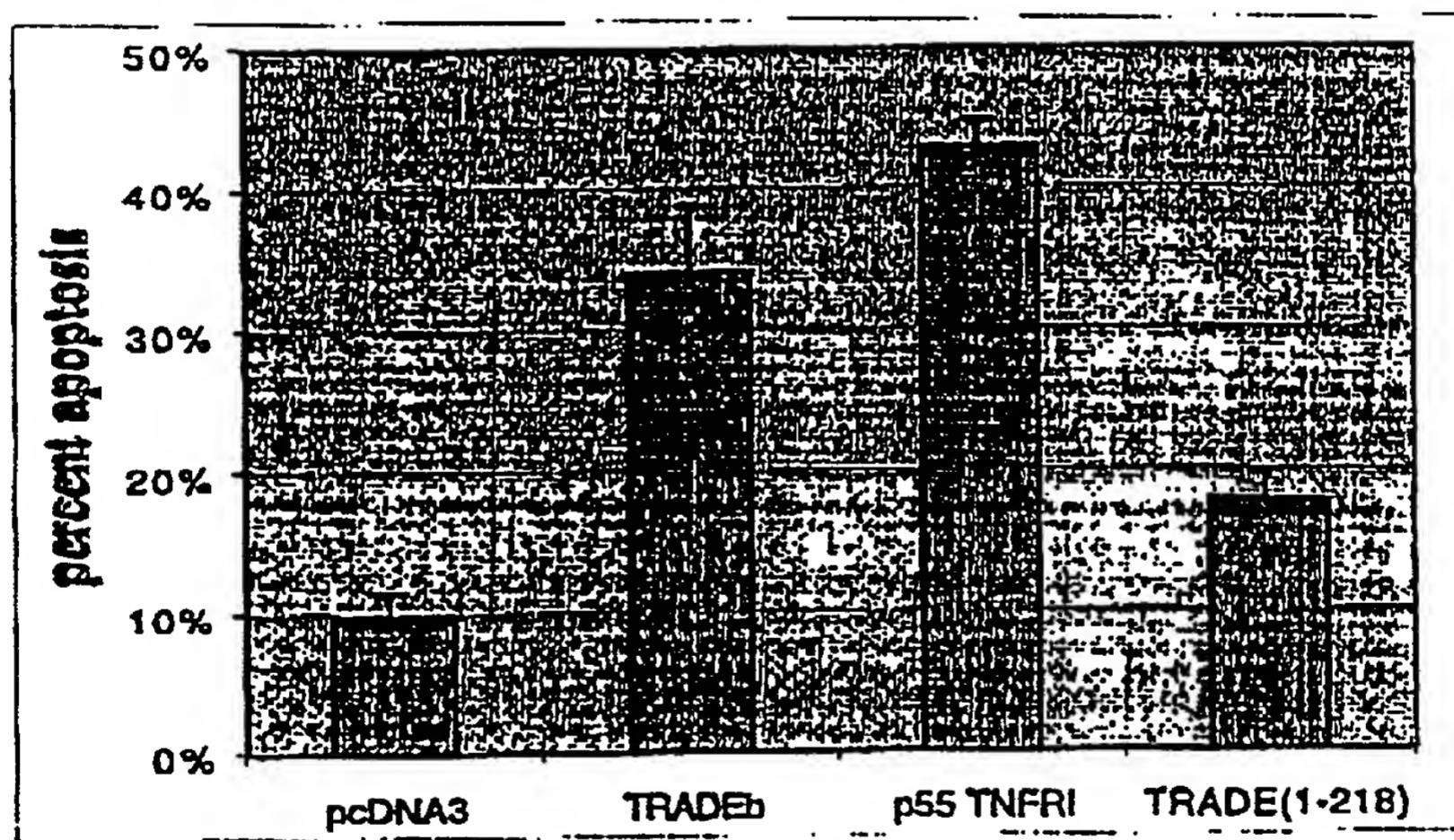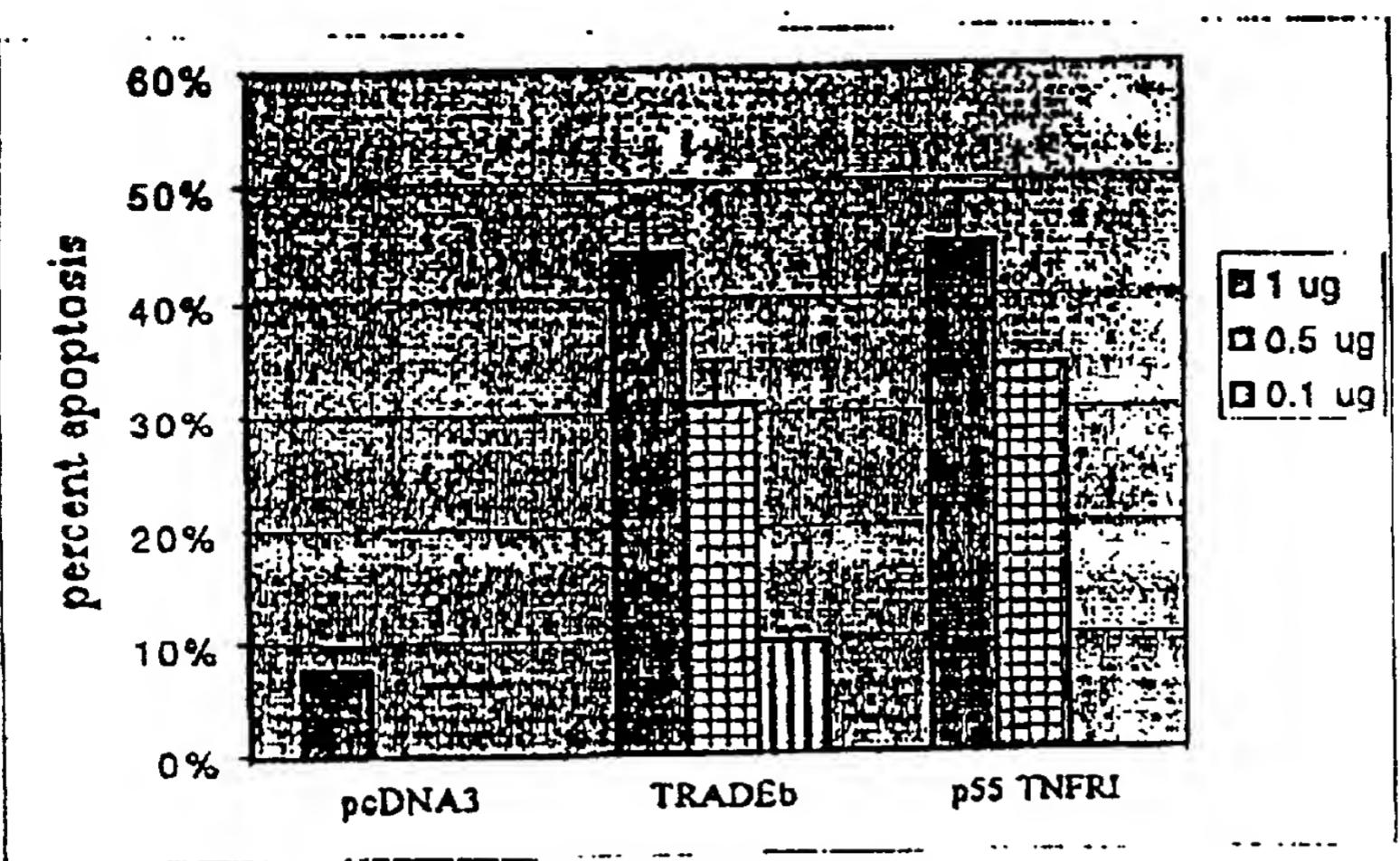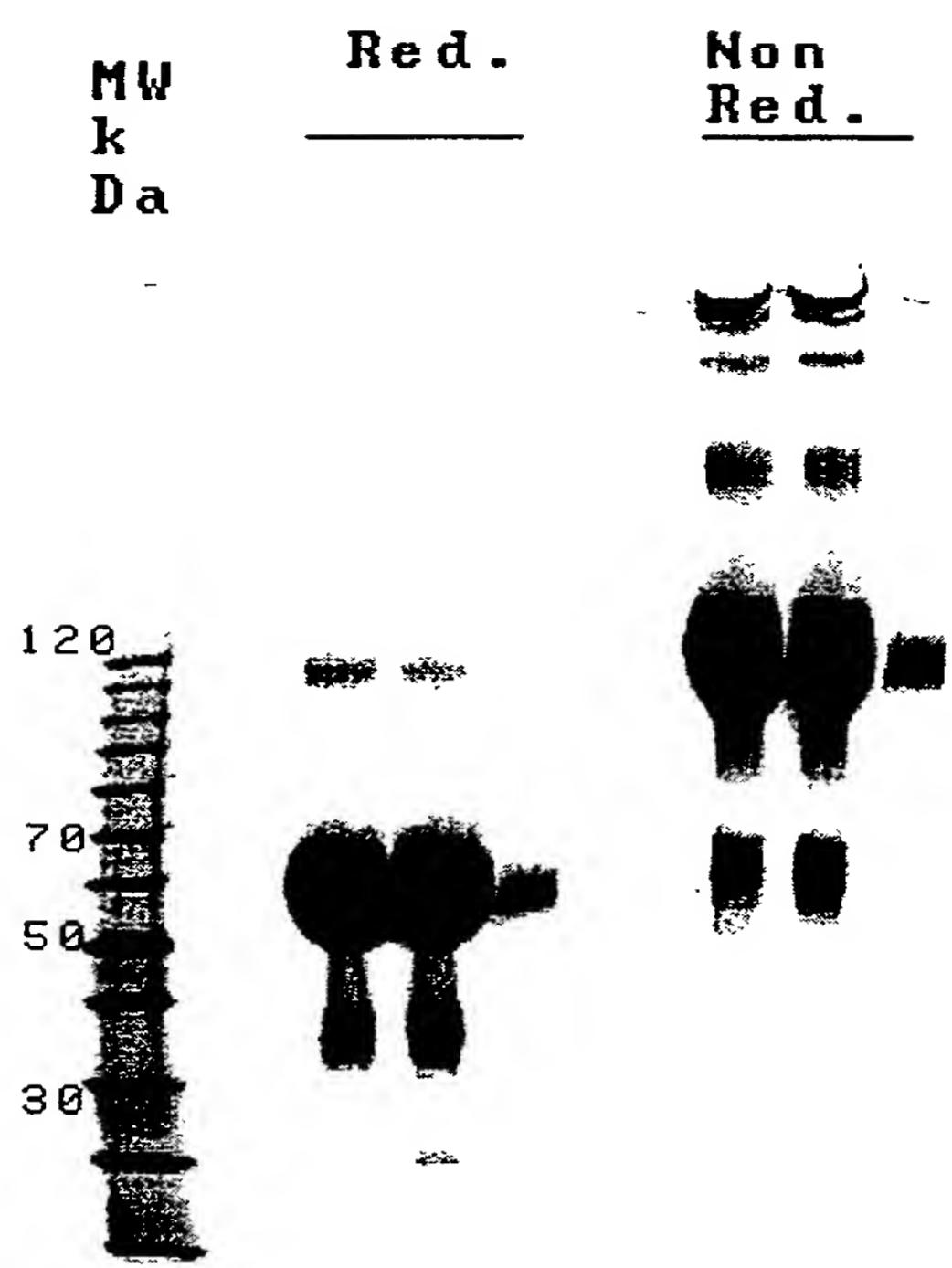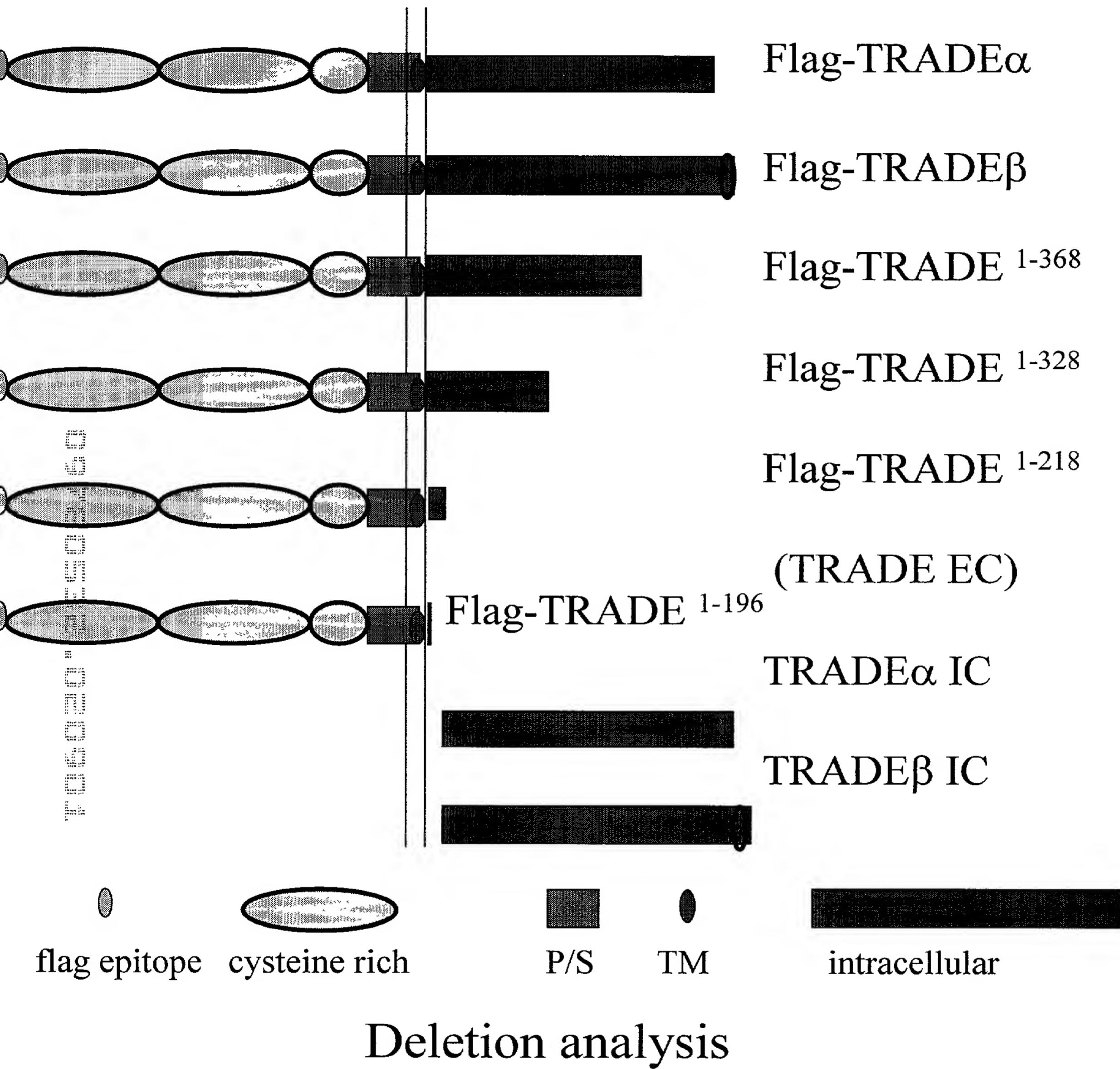
FIGURE 9
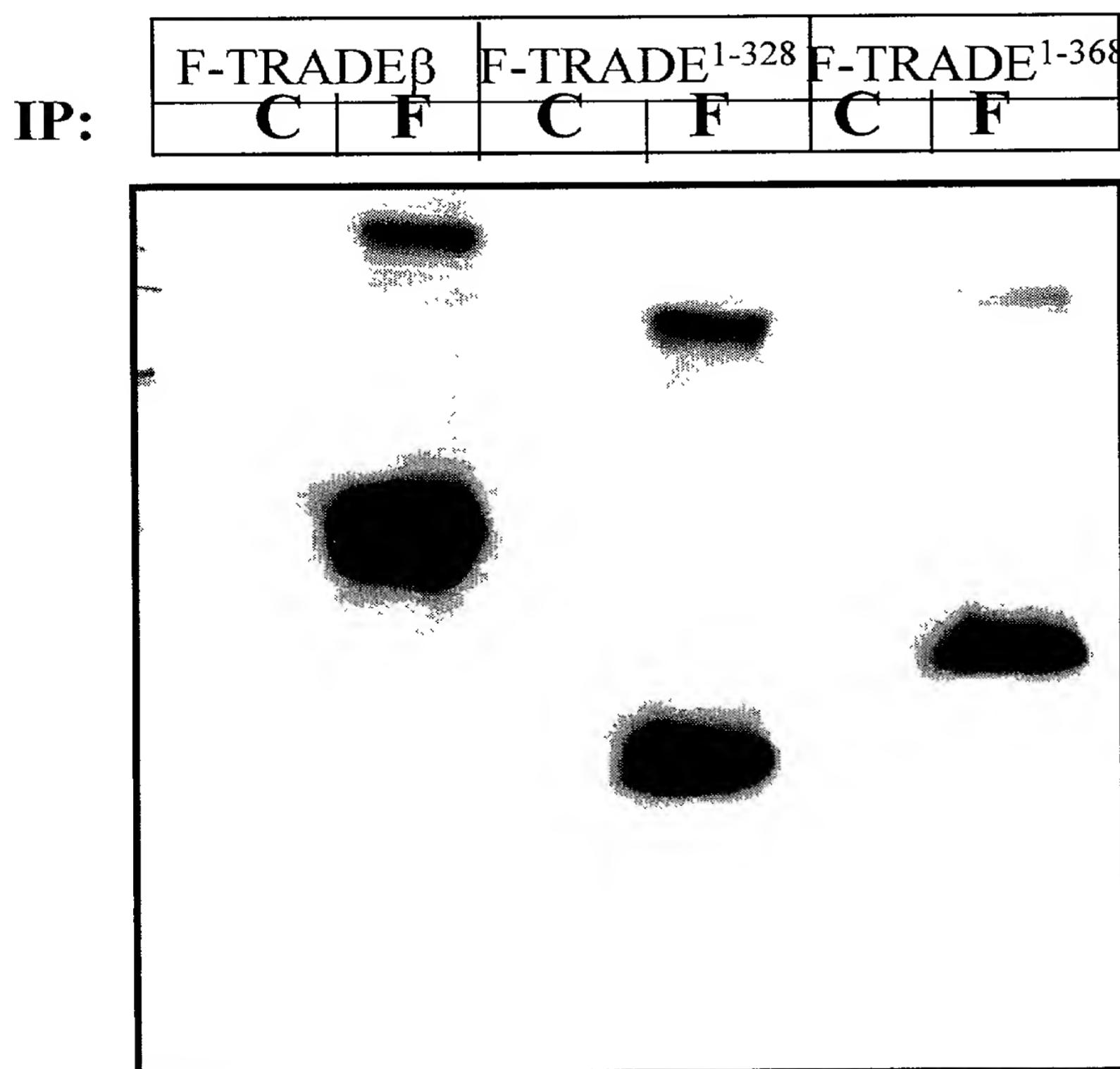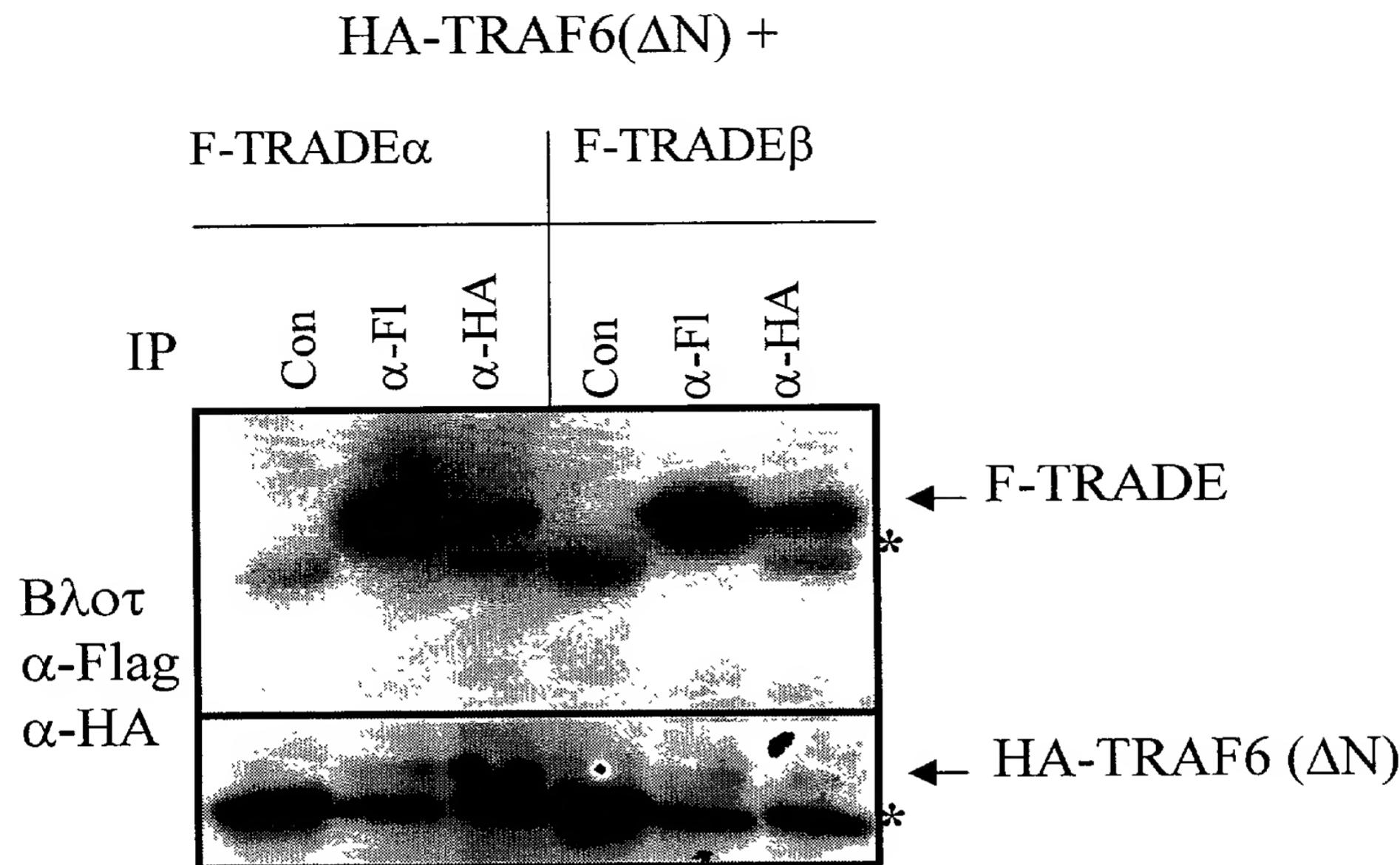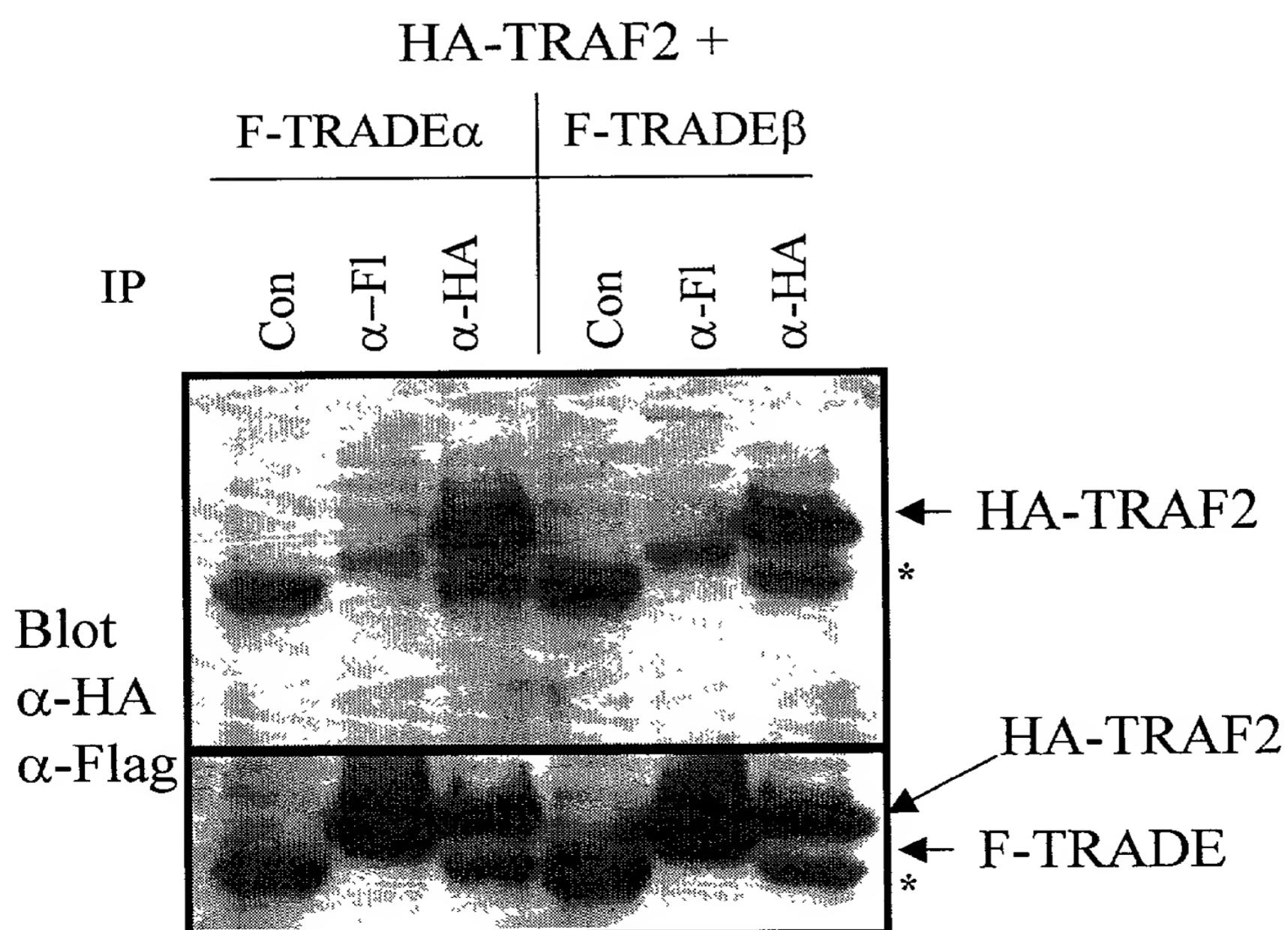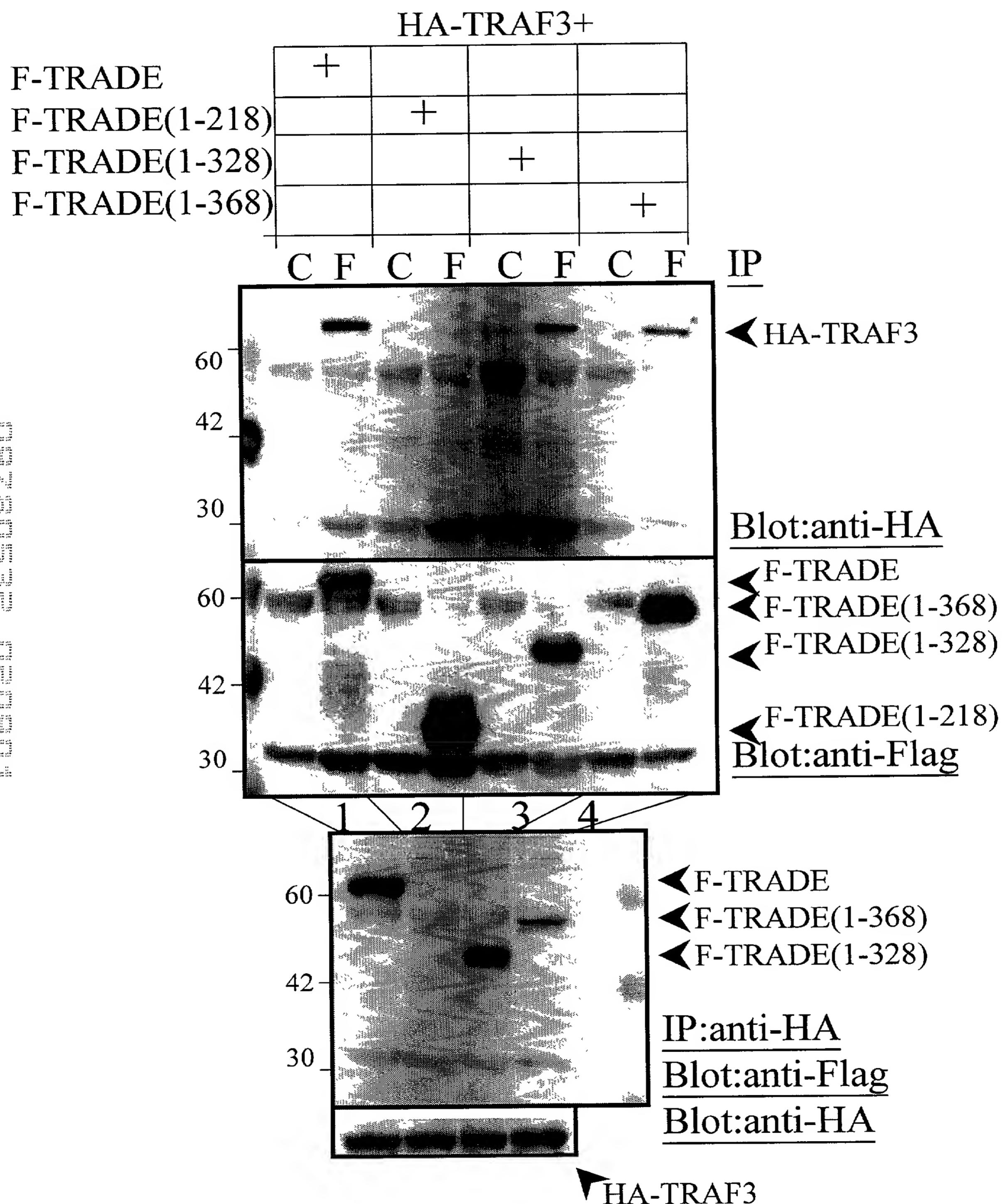
FIGURE 10

A

Kinase assay

B

anti-Flag blot

FIGURE 11

A

HA-TRAF6(ΔN) +

F-TRADEα   F-TRADEβ

IP   Con α-Fl α-HA   Con α-Fl α-HA

← F-TRADE
*

Βλοτ
α-Flag
α-HA

← HA-TRAF6 (ΔN)
*

B

HA-TRAF2 +

F-TRADEα   F-TRADEβ

IP   Con α-Fl α-HA   Con α-Fl α-HA

← HA-TRAF2
*

Blot
α-HA
α-Flag

HA-TRAF2

← F-TRADE
*

FIGURE 12

FIGURE 13

FIGURE 14